What is claimed is:

1. A semiconductor pressure sensor comprising:

a semiconductor substrate having a principle surface corresponding to (110)-face;

a pressure detecting diaphragm formed on the principle surface of the semiconductor substrate; and

strain gage resistors formed on the diaphragm for constituting a bridge circuit and outputting a detection signal in connection with strain of the diaphragm,

wherein the pressure detecting diaphragm has a planar shape comprised of four sides, the fours sides including a pair of first sides extending along <110> crystal axis direction and a pair of second sides extending along <100> crystal axis direction,

wherein the strain gage resistors comprise a pair of center gages disposed at a center portion of the pressure detecting diaphragm along the <110> crystal axis direction and a pair of side gages disposed be nearer to a peripheral portion of the pressure detecting diaphragm than the center gages so both of the pair of side gages are disposed at a portion of the semiconductor substrate having approximately a same stress distribution.

2. The semiconductor pressure sensor according to claim 1, wherein when an axis bisecting each of the first sides of the diaphragm and passing through the center point of the diaphragm is set as a first axis and an axis

17

vertically-intersecting to the first axis and passing through the center point of the diaphragm is set as a second axis, wherein each of the side gages is located on a virtual line which extends from the center point of each of the center gages to the peripheral portion of the diaphragm and intersects to the first axis and the second axis at 45°.

3.   The semiconductor pressure sensor according to claim 2, wherein the pair of side gages are arranged to be positionally symmetrical with each other with respect to the first axis.

4.   The semiconductor pressure sensor according to claim 3, wherein the pair of side gages are arranged to be positionally symmetrical with each other with respect to the second axis.